

Medical Physics Practice Guidelines

Furthering the goal of
consistent practice standards in
radiation oncology physics

Per Halvorsen, MS, DABR, FACR, FAAPM
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Outline

- How we got here:
 - AAPM's history of Task Group work & reports
 - ACR's history of Technical Standards & Practice Guidelines
 - Focus on medical errors and role of regulations
 - Requirements for clinic accreditation
 - Multiple accrediting entities
- Medical Physics Practice Guidelines
 - Vision and scope

AAPM Task Group history

- Significant volunteer activity by domain experts to develop technical reference documents
- Often developed by the "premier centers" in the country
- Task Groups' purpose is not to define a minimum practice standard, but rather to create useful technical reference documents for practicing medical physicists

ACR documents

- Developed through a consensus-focused process with broad representation by different practice environments
- Aim to define a minimum practice standard
- Significant physician influence
- Devoid of much specificity

MIPPA

- Medicare Improvements for Patients and Providers Act of 2008:
 - Signed into law in July 2008
 - Requires practice accreditation for the "advanced imaging" modalities which includes CT, MR, and Nuclear Medicine
 - Does not include x-ray, fluoroscopy, sonography, or anything in radiation oncology
 - Does not apply to hospitals

Accrediting bodies under MIPPA:

- American College of Radiology
- Intersocietal Accreditation Commission
- The Joint Commission
- *The Problem/Concern*
 - All have different requirements for personnel - AAPM is on record indicating concern with not requiring board certification for medical physicists

ASTRO's position:

AMERICAN SOCIETY FOR RADIATION ONCOLOGY
2010 YEAR IN REVIEW

TARGET SAFELY

Launching a significantly enhanced practice accreditation program and beginning the development of additional accreditation modules specifically addressing new, advanced technologies such as IMRT, SBRT and brachytherapy.

ACR's position:

ACR
AMERICAN COLLEGE OF
RADIOLOGY
QUALITY IS OUR IMAGE

ACR Calls for Mandatory Accreditation of All Advanced Imaging and Radiation Oncology Providers

The ACR believes Congress should expand the current MIPPA accreditation requirements for advanced imaging to include radiation therapy. In addition, the accreditation mandate should apply to all facilities, including hospital settings. Furthermore, the accrediting of these imaging and radiation therapy procedures should only be conducted by those accrediting bodies with experience and expertise in the area for which they are accrediting.

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ASTRO-AAPM: Patient safety

Special Article

Improving patient safety in radiation oncology

William R. Hendee PhD^a, Michael G. Herman PhD^{b,*}

^aMedical College of Wisconsin, Rochester, Minnesota
^bDepartment of Radiation Oncology, Mayo Clinic, Rochester, Minnesota

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Abstract Beginning in the 1990s, and emphasized in 2000 with the release of an Institute of Medicine report, health care providers and institutions have dedicated time and resources to reducing errors that impact the safety and well-being of patients. However, in January 2010, the first of a series of articles appeared in *The New York Times* that described errors in radiation oncology that grievously impacted patients. In response, the American Association of Physicists in Medicine and the American Society for Radiation Oncology sponsored a working meeting entitled "Safety in Radiation Therapy: A Call to Action." The meeting attracted 400 attendees, including medical physicists, radiation oncologists, medical dosimetrists, radiation therapists, hospital administrators, regulators, and representatives of equipment manufacturers. The meeting was co-hosted by 14 organizations in the United States and Canada. The meeting yielded 20 recommendations that provided a pathway to reducing errors and

- Staffing levels
- FMEA
- Error reporting
- Accreditation
- Standardization
- Checklists

Proposed solution:

- AAPM develops practice guidelines for medical physics, defining a minimum practice standard for a given scope of clinical service
- Accreditation programs (and state regulations?) incorporate the AAPM practice guidelines rather than defining their own

Medical Physics Practice Guidelines

AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE PROFESSIONAL POLICY: PROCESS FOR CREATION, APPROVAL, AND REVISION OF MEDICAL PHYSICS PRACTICE GUIDELINES

INTRODUCTION

The American Association of Physicists in Medicine (AAPM) has long advocated a consistent level of medical physics practice, and has published many guidelines and position statements toward that goal, such as Science Council Task Group reports related to calibration and quality assurance, Education Council and Professional Council Task Group reports related to education, training, and peer review, and Board-approved Position Statements related to the scope of practice, physicist qualifications, and other aspects of medical physics practice. Despite these concerted and enduring efforts, the profession does not have a clear and concise statement of the acceptable practice guidelines for routine clinical medical physics. As accreditation of clinical practices becomes more common, Medical Physics Practice Guidelines (MPPGs) will be crucial to ensuring a consistent benchmark for accreditation programs.

The AAPM will lead the development of MPPGs in collaboration with other professional societies. The MPPGs will be freely available to the general public. Accrediting organizations, regulatory agencies and legislators will be encouraged to reference these

TG reports vs MPPGs

TG reports are:

- Intended to be technical reference for medical physicists – compendia of the known science on a topic.
- Written by a core group of subject-matter experts
- Reviewed by subject-matter committee and approved by one Council

TG reports vs MPPGs

MPPGs are:

- Developed following a structured process to become consensus practice guidance documents
- Developed with cross-Council participation
- Open for review/comment by ALL members
- Intended to be adopted by regulatory agencies and accrediting entities
- Updated regularly – sunset dates / revision #
- Freely available to ALL – not just AAPM

MPPG vision/scope

2. Vision

The AAPM will lead the development of MPPGs in collaboration with other professional societies. The MPPGs will be freely available to the general public. Accrediting organizations, regulatory agencies and legislators will be encouraged to reference these MPPGs when defining their respective requirements.

3. Scope

MPPGs are intended to provide the medical community with a clear description of the minimum level of medical physics support that the AAPM would consider prudent in all clinical practice settings. Support includes but is not limited to staffing, equipment, machine access, and training. These MPPGs are not designed to replace extensive Task Group reports or review articles, but rather to describe the recommended minimum level of medical physics support for specific clinical services.
